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(54) Title: HISTONE DEACETYLASE INHIBITOR PRODRUGS

(57) **Abstract:** The present invention is directed to prodrugs of hydroxamic acid based histone deacetylase (HDAC) inhibitors, e.g., suberoylanilide hydroxamic acid (SAHA). The prodrugs are acylated derivatives having increased aqueous solubility and cellular permeability as compared with the free hydroxamic acid, and are useful for inhibiting HDACs, and for selectively inducing terminal differentiation, cell growth arrest and/or apoptosis of neoplastic cells, thereby inhibiting proliferation of such cells. Thus, the prodrugs of the present invention are useful in treating a patient having a tumor characterized by proliferation of neoplastic cells. The prodrugs of the invention are also useful in the prevention and treatment of thioredoxin (TRX)-mediated diseases, such as autoimmune, allergic, and inflammatory diseases, and in the prevention and/or treatment of diseases of the central nervous system (CNS), such as neurodegenerative diseases.



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